

Before the
Federal Communications Commission
Washington, D.C. 20554

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FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF SECRETARY

In the Matter of:)
)
Rulemaking to Amend Parts 1, 2 , 21, and 25) CC Docket No. 92-297
of the Commission's Rules to Redesignate)
the 27.5-29.5 GHz Frequency Band, to)
Reallocate the 29.5-30.0 GHz Frequency)
Band, to Establish Rules and Policies for)
Local Multipoint Distribution Service and for) DOCKET FILE COPY ORIGINAL
Fixed Satellite Services)
)
And)
)
Suite 12 Group Petition for Pioneer's Preference) PP 22

NYNEX REPLY COMMENTS

NYNEX Corporation

Donald C. Rowe
1111 Westchester Avenue
White Plains, NY 10604
(914) 644-6993

Its Attorney

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SUMMARY

In its Comments NYNEX commended the Commission for its open-ended and inclusive approach in the Third NPRM. We supported both the proposed band segmentation plan and the proposed LMDS auction plan. Importantly, we urged that the LMDS spectrum be made available at auction -- and awarded as a pioneer's preference -- in the smallest viable blocks. This will encourage a diversity of services and providers and promote the deployment of spectrally-efficient digital technology. In addition, we urged that a Technical Advisory Committee ("TAC") be formed to answer certain technical questions affecting spectrum use and sharing.

In these Reply Comments, NYNEX responds to certain competition-limiting proposals that would preclude the participation of some interested parties and would commit the entire 1000 MHz of LMDS spectrum to only one entity in each market (by auction or award). The LMDS spectrum is versatile and precluding auction participation might eliminate those with the greatest interest in providing competitive services. Similarly, auctioning only the entire 1 GHz block would preclude those that could efficiently use lesser amounts to provide innovative and competitive services. Moreover, this would either encourage the buildout of antedated analog technology or facilitate the private remarketing of spectrum by auction winners using digital technology systems. Finally, both the need to assess the timetable for digital technology development and to address important technical questions raised by commenters strongly support the establishment of a TAC.

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To: The Commission

NYNEX REPLY COMMENTS

NYNEX Corporation, on behalf of its subsidiaries (collectively "NYNEX"),
hereby submits its Reply Comments responding to the comments of various other parties
filed September 7, 1995 in these proceedings.

I. **INTRODUCTION**

In its Comments, NYNEX commended the Commission for the open and inclusive
approach that it has established for the delivery of diverse services in the 27.5-29.5 GHz
Frequency Band at issue in the Third Notice of Proposed Rulemaking and Supplemental
Tentative Decision ("Third NPRM"), released July 28, 1995. Like the Commission,

NYNEX regrets the inability of the Negotiated Rulemaking Committee established in this proceeding to reach fully developed spectrum sharing proposals.¹ NYNEX supported the Commission's spectrum segmentation proposal as a reasonable "second best" solution. NYNEX further supported the Commission's determination to allocate 1000 MHz to LMDS providers (albeit in 850 MHz and shared 150 MHz segments), to promote the use of this spectrum for all potential uses and providers, and to allow the services subsequently established to be provided on both common carrier and non-common carrier bases.

NYNEX pointed out, however, that certain technical specifications in the Third NPRM unnecessarily limit competition in contravention of the Commission's purposes.² In addition, NYNEX urged that the Commission support multiple competitors and expansive customer choice of new services, as well as efficient digital technologies, by:

- (i) offering spectrum blocks for auction in the smallest economically viable blocks; and,
- (ii) allowing providers to aggregate such blocks. There should be no market allocation or auction to one entity to the preclusion of others (including the participation of others in the New York BTA, awarded in part to CellularVision under its pioneer's preference).³

Inasmuch as certain technical issues remained open as to the necessity for limiting specifications and sole-provider spectrum requirements, NYNEX urged the Commission

¹ Second Notice of Proposed Rulemaking, 9 FCC Rcd. 1394 (1994). NYNEX actively participated as a member of this NRMC through its NYNEX Science & Technology organization.

² NYNEX Comments at pp. 2-4.

³ Id. at pp. 5-6.

to establish a Technical Advisory Committee ("TAC") to produce data which would serve as the foundation for the Commission's procompetitive approach. Finally, NYNEX pointed out that the TAC could act without any measurable delay to the proceeding now that the Commission and commenters had focused the issues.⁴

Now, not surprisingly, the comments of many others have urged a narrowing of the Commission's inclusive approach. NYNEX focuses in reply on the LMDS spectrum in which it has an interest.⁵ Here, some argue that certain participants should not be permitted to bid, while one argues that the bidding itself should not take place. Others contend that all of the LMDS spectrum in each BTA should be auctioned (or awarded) to one entity as a precondition of the auction. Still others argue for additional technical specifications that may exclude spectrum utility, although some present technical information that -- upon further examination -- might increase spectrum utility.

As discussed below, these comments individually and collectively reinforce the need for procompetitive LMDS auction rules and awards based on the most efficient technologies, and for the establishment of a TAC to answer technical questions affecting spectrum use and sharing.

⁴ NYNEX Comments at pp. 7-8.

⁵ We do not, for example, address the myriad of commenters who argue that satellite spectrum should not be auctioned, or suggest the development of particular United States positions for presentation at the World Radiocommunications Conference ("WRC"). Others will undoubtedly develop these points further in their Reply Comments.

II. THE COMMISSION SHOULD MAINTAIN ITS INCLUSIVE AUCTION APPROACH

Numerous parties support the Commission's inclusive approach, pointing out that there are neither legal nor sound policy reasons to preclude participation by all entities.⁶ However, several argue that the Commission should not permit local exchange carriers ("LECs") or wireline cable companies ("CableCos") to participate in the LMDS auctions. Specifically, M3ITC argues that the Commission should restrict LMDS ownership for both entities since LMDS offers a competitive alternative for the services either or both provide today.⁷ It further argues that MMDS/LMDS cross-ownership should be restricted. Entertainment Made Convenient ("EMC") argues that only 50 MHz of spectrum should be available to the "dominant [LEC and CableCo] local service provider(s)", under its scheme for multiple licensees.⁸ RioVision of Texas states that:

"The Commission [should] carefully weigh possible cross-ownership regulatory provisions with respect to other video and telephony providers so that entrepreneurial LMDS companies have maximum ability to provide direct competition to those providers in keeping with the Commission's long-standing policy of marketplace regulation."⁹

M3ITC also requests that the Commission proceed by a lottery process, rather than by competitive bidding in an auction.

⁶ See, e.g., Comments of Texas Instruments at pp. 17-18.

⁷ Comments of M3 Illinois Telecommunications Corporation ("M3ITC") at pp. 3-4.

⁸ Comments of Entertainment Made Convenient at pp. 7-8.

⁹ Comments of Rio Vision, Inc. at p. 3.

In fact, the Commission has already carefully weighed the need for competition in its First NPRM in this proceeding.¹⁰ The resulting proposed rules do not contain any such eligibility restrictions. Instead, the Commission has sought to further the public interest by facilitating competition to its maximum extent. The Commission has properly refrained from choosing among “entrepreneurial” providers as RioVision requests or from arbitrarily handicapping a lottery by eliminating certain participants as M3ITC requests. The public interest will be served in the auction process by enabling those with the greatest commitment to serve, and the highest economic level of interest, to compete. Far from excluding the LECs or CableCos, the great versatility of this immense spectrum to provide video, telephony and other services favors the competition of all prospective providers. It may well be that the public will best be served by enabling the strongest local CableCo to compete with the LEC, or vice versa. Only a legitimate concern that spectrum would be purchased and “warehoused” could arguably warrant such a preclusion. This is a greatly improbable prospect, as discussed in detail by GTE.¹¹

For the same reasons, there is no a priori basis for the Commission to restrain the interests of LEC or CableCo competitors to limited amounts of available spectrum as EMC suggests. But EMC is correct to a degree. That is, the Commission should

¹⁰ In the Matter of Rulemaking to Amend Part 1 and Part 21 of the Commission's Rules to Redesignate the 27.5 - 29.5 GHz Frequency Band and to Establish Rules and Policies for Local Multipoint Distribution Service, Notice of Proposed Rulemaking, Order, Tentative Decision and Order on Reconsideration, 8 FCC Rcd. 557 (1993) (“First NPRM”), recon. pending.

¹¹ Comments of GTE at p. 8.

facilitate the interests of all competitors that believe they can best serve the public with a segmented portion of LMDS spectrum. We discuss this need below.

III. THE COMMISSION SHOULD AUCTION LMDS SPECTRUM IN THE SMALLEST VIABLE BLOCKS

In the Third NPRM the Commission sought comments on the size of the blocks it should auction for LMDS.¹² Specifically, the Commission inquired whether spectrum should be auctioned in one, two or three blocks. NYNEX responded by noting that, with the advent of digital technology, the versatility of the LMDS spectrum would permit multiple parties to use smaller blocks very effectively. Conversely, we noted that awarding a single block would preclude these uses and, indeed, encourage inefficient use of outdated analog technology.

Many parties supported the auction of the *total spectrum in each market* to only *one entity*.¹³ Their arguments were generally based in the premise that this gave the auction winner enough spectrum to develop an economically viable service or services. For example, BellSouth notes that:

“[T]he Commission has tentatively concluded that to the extent LMDS systems are used to provide video services, LMDS will be competing in a multichannel video programming distribution (“MVPD”) market. Notice at ¶ 77. BellSouth agrees with the Commission that the MVPD market should be defined to include “cable operators, DBS providers, wireless cable systems, satellite master antenna television stations and video dialtone systems.” Id. The Commission itself recognized that “there may be significant

¹² Id. at paras. 77-79.

¹³ See, e.g., Comments of BellSouth at pp. 5-6.

competition facing LMDS service providers from providers of other services.” Id. at ¶ 88.¹⁴

Although NYNEX agrees with all of the foregoing, none of it addresses why a single entity is needed to develop different services or why smaller blocks in different markets do not offer a comparable economic incentive to more competitors.

Most importantly, these arguments presuppose the buildout of outdated analog technology to produce enough channels to compete. Indeed, NYNEX understands that hundreds of channels could be produced over the full 1 GHz using digital technology. In fact, it is extremely telling that the “pioneer” in LMDS technology (CellularVision) concedes that only 425 MHz -- less than one-half of the spectrum it seeks -- can support at least 50-200 channels.¹⁵ Further, it can do so even after sacrificing spectrum-efficiency to other factors in the “lowest-possible-cost LMDS implementations”.¹⁶ The Commission is not obliged to support the use of antedated technology so that auction winners can, in CellularVision’s terms, “maximize the return on investment in spectrum.”¹⁷

Others defend the weakness in this position by arguing that digital technology is not yet ready for deployment.¹⁸ This argument wrongly presupposes that service

¹⁴ Id., at p. 6.

¹⁵ Comments of CellularVision at 16, n.23

¹⁶ Id. at 30.

¹⁷ Id.

¹⁸ See, e.g., Titan Information Systems at pp. 3-4

buildout will occur when there is no reasonable likelihood that any buildout of LMDS will occur for at least a year. But even if this buildout could be completed in the next year, it would be poor public policy for the Commission to encourage the construction of antedated technology requiring an inefficient and wasteful use of spectrum.

The case for one block at auction per market is irrefutably belied by the argument advanced by many of the same parties that the auction winner should then be able to disaggregate and freely lease its unused spectrum.¹⁹ These parties look clearly down the road to when -- in the not-too-distant future -- the spectrum owner will be able to use more efficient digital technology, thus enabling the remarketing of “unnecessary” spectrum.

The Commission anticipated both this advance of technology and these requests:

“[W]e are aware that continued improvements in technology may eventually make it possible for individual licensees to reduce the amount of spectrum they need for the types of services they propose to provide. Accordingly, we propose to permit spectrum disaggregation of spectrum by LMDS licensees. Commenters favoring disaggregation should address how a licensee would accomplish such disaggregation and what procedural and substantive rules the Commission should promulgate for licensing disaggregated licensees.”²⁰

¹⁹ Comments of CellularVision at p. 17; Comments of Endgate at p. 4; Comments of GHz Equipment Company (“GEC”) at p. 4; and Comments of Pacific Telesis Wireless Broadband Services at p. 2. See, e.g., GEC view that “an operator should be entitled to lease spectrum as the operator sees fit in order to fully accommodate alternative uses of the spectrum.” *Id.*

²⁰ Third NPRM at para. 80

Contrary to the implicit claims of the “single entity” proponents, there is no compelling reason why the Commission should struggle now with new rules in order to countenance and facilitate the private brokering of spectrum. Instead, the Commission should seek to determine the size of spectrum blocks that will support economically viable service in later 1996 and beyond, and offer these at auctions.²¹

As indicated in our Comments, NYNEX believes that the Commission can best develop data on digital technologies through a TAC. Based on the technical presentations to the NPRM, our discussions with suppliers, the progress made towards digitalization in comparable services such as MDS and DBS, and the continued advances in MPEG standards and technologies, we are confident that the technical ability to provide multiple television channels within the now standard 6 MHz NTSC channel will be available within the time frame for deployment in this proceeding. Digital capabilities will, in fact, permit service providers to offer several communication services, and more TV channels than are presently offered by current cable (both wired and wireless) providers, using only a fraction of the 1 GHz. There is no evidence that LMDS spectrum inherently cannot be used as efficiently as MDS spectrum (about 200 digital channels per 189 MHz) if the network design does not sacrifice spectrum for other cost elements, supra. The Commission should not disregard these capabilities when establishing the auction

²¹ In doing so, the Commission would be lending its support and leadership to the deployment of state-of-art digital technology for LMDS providers, as it has done for Digital Broadcast Satellite (“DBS”) providers, and as it has promised for Multipoint Distribution Service (“MDS”) providers.

spectrum blocks, and ultimately the LMDS market structure, in this proceeding. Nor should it preclude the bidder which may wish to pursue a smaller block of spectrum for a non-video use. Nevertheless, if the Commission feels compelled to offer the spectrum for auction in major segments, it should adopt no less than the three segment plan it proposed.

IV. THE COMMISSION SHOULD NEITHER CONDITION ITS PIONEER'S PREFERENCE ON ANALOG TECHNOLOGY NOR EXCLUDE OTHERS BECAUSE OF ITS USE BY CELLULARVISION

In its Comments, NYNEX supported the recognition of CellularVision for a pioneer's preference award in the New York BTA.²² CellularVision has clearly led the way in demonstrating the viability of LMDS analog technology. Although the Commission departed from its usual practice by specifying the New York market as a pioneer's preference area, CellularVision has indicated that it will accept this designation.²³

NYNEX further urged the Commission to depart from its usual practice by permitting CellularVision to use more spectrally-efficient digital technology in its future use of the awarded spectrum.²⁴ We noted that it would make little sense to constrain CellularVision to antedated technology in the nation's premier market. Surprisingly, CellularVision itself has

²² NYNEX Comments at p. 6.

²³ Comments of CellularVision at p. 9.

²⁴ NYNEX Comments at p. 6.

apparently acceded to the “requirement that CellularVision substantially use the design and technologies upon which its award is based within a reasonable time after receiving its license.”²⁵ It is now reportedly on its way to rolling out further services to the public.

On one hand, it may be that CellularVision soon plans to introduce digital technology as foreshadowed obliquely by its advice that this “condition is reasonable, as long as it is flexible enough to permit CellularVision to implement system enhancements that are realized by the continuing development of its technology...”²⁶ Thereafter, CellularVision proposes to be allowed to disaggregate its spectrum²⁷ and then to freely transfer or assign its interests.²⁸ As above, the Commission should neither countenance nor facilitate the private brokering of LMDS spectrum, especially where such a result is unnecessary; rather, spectrum should be made available at auction in the smallest segments commercially and technically necessary.

On the other hand, if CellularVision intends to ubiquitously deploy analog technology, the Commission is squarely presented with the conundrum we addressed earlier. That is, it can “award” a vast amount of spectrum to one entity (precluding all others) and require its inefficient use, or it can “award” a lesser amount to that entity (enabling others to participate)

²⁵ Comments of CellularVision at p. 12.

²⁶ Id.

²⁷ Id. at 17: (“[w]hile CellularVision firmly believes that an LMDS operator needs 1000 MHz to be competitive in today’s marketplace, disaggregation of spectrum will afford LMDS operators the flexibility to operate with less spectrum should that become possible in the future...”).

²⁸ Id. at 20. Perhaps this is the same result that GTE Services urges the Commission to avoid by enforcing its usual “same design/same technology” rule. Comments of GTE Services at p. 10.

and enable -- indeed promote -- its efficient use. NYNEX maintains that the latter is clearly the preferable approach, and can be best facilitated by the Commission's own disaggregation of spectrum for award and auction.²⁹ The actual spectrum needs of service providers will then become apparent in their bidding conduct.

V. A TECHNICAL ADVISORY COMMITTEE SHOULD BE ASKED TO ANSWER OPEN TECHNICAL QUESTIONS

In its Comments, NYNEX proposed that a TAC be established to answer open technical questions. Foremost among these is the timeframe in which digital LMDS equipment would be available for deployment. As above, this is the most critical market structure/public interest question relating to LMDS. It alone would warrant establishing the TAC.

A review of comments reveals numerous other issues requiring technical resolution by the TAC. For example, many parties have commented unfavorably on the power requirements being considered (EIRP -52).³⁰ Some have even stated that this requirement will frustrate economical LMDS if left unchanged.³¹ Numerous others suggest that the issue

²⁹ Interestingly, CellularVision discusses at length the cost of transition to digital technology once an analog system is built. *Id.* at 14, n.18. In view of this fact, it is likely that most providers (unlike CellularVision) will contemplate building a digital system in the first instance.

³⁰ See, e.g., Comments of BellSouth at p.13; Comments of CellularVision at pp. 26-27; Comments of Hewlett-Packard at pp. 2-3; Comments of Northern Telecom at pp. 8-9; and Comments of Texas Instruments at pp. 21-22.

³¹ Comments of Hewlett-Packard at pp. 2-3.

of subscriber transmissions in the 29.1-29.25 GHz frequency band is of equal concern.³² The technical capability of this spectrum to permit two-way LMDS subscriber transmissions, while supporting FSS on a co-primary basis, may well determine whether this 150 MHz has any practical value to prospective bidders. These are issues that the TAC can answer now that the Commission has put forth a spectrum segmentation plan.³³

At the same time, other parties present new technical information which they argue permit greater spectrum sharing and utility. For example, Texas Instruments presents two technical Appendices for the Commission's consideration.³⁴ NYNEX applauds the Commission's efforts to drive this proceeding forward. We believe that it may have broken the "logjam" with its band segmentation plan in the Third NPRM. This may be evidenced in TRW's request for additional time to enable discussions among industry participants. However, in the absence of breakthrough agreements, the Commission needs to be able to rely on the facts developed by the TAC, not on party arguments, as a solid foundation for its decisions in this proceeding.

³² See, e.g., Comments of BellSouth at p. 5; Comments of ComTech at pp. 3-4; Comments of Endgate at pp. 1-2; Comments of Hewlett-Packard at pp. 3-5; Comments of Northern Telecom at pp. 4-6; Comments of Public Television at pp. 7-11; and Comments of Texas Instruments at pp. 11-12. Cf. opposing Comments of Motorola at pp. 2-6.

³³ As noted earlier, the NRMC did not itself seek to segment or split the spectrum band width, despite the requests of several parties including NYNEX, because it did not believe that it was chartered to do so. NYNEX Comments at p. 3. Therefore, many of these technical issues went undeveloped. Contrary to the position now argued by Motorola, such factual development now is needed -- not unnecessary -- precisely because this has been advanced only as a private, non-NRMC "settlement" proposal (Motorola at pp. 3-4).

³⁴ Comments of Texas Instruments, Appendices A and B

VI. CONCLUSION

For all of the foregoing reasons, NYNEX urges the Commission: (1) to establish inclusive, procompetitive rules for its planned pioneer's preference award and auction of LMDS spectrum; and (2) to establish a TAC to answer technical questions affecting spectrum use and sharing.

Respectfully submitted,

NYNEX Corporation

By: 
Donald C. Rowe


1111 Westchester Avenue
White Plains, NY 10604
(914) 644-6993

Its Attorney

Dated: October 10, 1995

CERTIFICATE OF SERVICE

I, Yvonne Kuchler, hereby certify that on the 10th day of October 1995, a copy of the foregoing NYNEX Reply Comments in Docket No. CC 92-297 was served on each of the parties listed on the attached Service List by first class U.S. mail, postage prepaid.


Yvonne Kuchler

Mr. Charles F. Newby
TITAN INFORMATION SYSTEMS CORP.
3033 Science Park Road
Sand Diego, CA 92121

Philip L. Verveer
Michele R. Pistone
WILLKIE FARR & GALLAGHER
Attorneys for Loral Aerospace Holdings, Inc.
1155 21st Street, N.W.
Washington, DC 20036-3384

Mr. Douglas Dwyre
President
LORAL/QUALCOMM PARTNERSHIP, L.P.
3200 Zanker Road
P.O. Box 640670
San Jose, CA 95164-0670

J. Michael Rhoads
President
3M ILLINOIS TELECOMMUNICATIONS CORP.
P. O. Box 292557
Kettering, Ohio 45429

Kristin A. Ohlson
PACIFIC TELESIS WIRELESS BROADBAND
2410 Camino Ramon
Suite 100
San Ramon, CA 94583

Richard S. Wilensky
MIDDLEBERG RIDDLE & GIANNA
Attorney for ComTech Associates, Inc.
2323 Byram Street
Suite 1600
Dalas, TX 75201

Andrew D. Lipman
Margaret M. Charles
SWIDLER & BERLIN, CHARTERED
Attorneys for Andrew Corporation
3000 K Street, N.W. Suite 300
Washington, DC 20007-5116

Mr. William A. Graven
EMC, U.S.A., Inc.
8180 Greensboro Drive
Suite 1000
McLean, VA 22102

Peter A. Rohrbach
Karis A. Hastings
HOGAN & HARTSON, L.L.P.
Attorneys for GE American Communications, Inc.
555 Thirteenth Street, N.W.
Washington, DC 20004

James G. Pachulski
BELL ATLANTIC TELEPHONE COMPANIES
1320 North Court House Road - 8th Flr
Arlington, VA 22201

Mr. Gerald Musarra
LOCKHEED MARTIN CORP.
Space & Strategic Missiles Sector
1725 Jefferson Davis Highway
Arlington, VA 22202

Leonard Robert Raish
FLETCHER, HEALD & HILDRETH, P.L.C.
Attorneys for Digital Microwave Corp.,
Harris Corporation-Farinon Division and
Fixed Point-To-Point Communications
1300 North 17th Street - 11th Floor
Rosslyn, VA 22209

Kathleen Abernathy, Esq.
David A. Gross, Esq.
AIRTOUCH COMMUNICATIONS, INC.
1818 N. Street, N.W. Suite 800
Washington, DC 20036

Frank Panek, Esq.
AMERITECH
2000 West Ameritech Center Drive
Room 4H84
Hoffman Estates, IL 60196

Thomas J. Keller, Esq.
Julian L. Shepard, Esq.
VERNER, LIPFERT, BERNHARD
Attorneys for Orion Network Systems, Inc.
901 15th Street, N.W. Suite 700
Washington, DC 20005

Robert J. Miller
GARDERE & WYNNE, L.L.P.
Attorneys for Alcatel Network Systems, Inc.
1601 Elm Street, Suite 3000
Dallas, TX 75201

Mr. Perry Haddon
Vice President
GHz Equipment Company
1834 E. Baseline Road, Suite 202
Tempe, AZ 85283-1508

Leonard Kennedy, Esq.
DOW, LOHNES & ALBERTSON
Attorneys for Cox Enterprise, Inc.
Comcast Corp. and Jones Intercable Inc.
1255 Twenty Third Street, N.W.
Suite 500
Washington, DC 20037

Mr. Edward Keible
Chief Executive Officer
Endgate Corporation
321 Soquel Way
Sunnyvale, CA 94086

Mr. Charles T. Force
Associate Administrator for Space Communication
NATIONAL AERONAUTICS & SPACE ADMINISTRATION
Washington, DC 20546-0001

LEVENTHAL, SENTER & LERMAN
Attorneys for TRW Inc.
2000 K Street, N.W.
Suite 600
Washington, DC 20006-1809

MORRISON & FOERSTER
Attorneys for Satellite Industry Association
2000 Pennsylvania Avenue, N.W.
Suite 5500
Washington, DC 20006

GOLDBERG, GODLES, WIENER & WRIGHT
Attorneys for Panamsat Corporation
1229 Nineteenth Street, N.W.
Washington, DC 20036

Marilyn Mohrman-Gillis
Assoc. of America's Public Television Stations
1350 Connecticut Avenue, N.W.
Suite 200
Washington, DC 20036

Paula Jameson
Gregory Ferenbach
PUBLIC BROADCASTING SERVICE
1320 Braddock Place
Alexandria, VA 22314

Jim O. Llewellyn
BELLSOUTH CORPORATION
1155 Peachtree Street, N.E.
Suite 1800
Atlanta, GA 30309-3610

T. W. Davidson, P.C.
Jennifer Manner, Esq.
AKIN, GUMP, STRAUSS, HAUER & FIELD
Attorneys for Teledesic Corp.
1333 New Hampshire Avenue, N.W.
Suite 400
Washington, DC 20036

Peter Connolly, Esq.
KOTEEN & NAFTALIN
Attorneys for Telephone & Data Systems, Inc.
1150 Connecticut Avenue, N.W.
Washington, DC 20036

Mr. Jon Schill
RioVision of Texas, Inc.
P.O. Box 1065
1800 East Highway 83
Weslaco, TX 78596

Harold K. McCombs, Jr.
DUNCAN, WINBERG, MILLER, PEMBROKE
1615 M Street, N.W.
Suite 800
Washington, DC 20036

Stephen L. Goodman, Esq.
HALPRIN, TEMPLE, GOODMAN & SUGRUE
Attorneys Northern Telecom Inc.
1100 New York Avenue, N.W.
Suite 650, East Tower
Washington, DC 20005

John P. Janka, Esq.
LATHAM & WATKINS
Attorneys for Hughes Communications Galaxy
1001 Pennsylvania Avenue, N.W.
Suite 1300
Washington, DC 20004

Mr. Gene A. Robinson
TEXAS INSTRUMENT INC.
P.O. Box 650311, MS 3933
Dallas, TX 75265

Mr. Douglas A. Gray
Microwave Communications Group
HEWLETT-PACKARD COMPANY
1501 Page Mill Road, 4A-F
Palo Alto, CA 9304

Mr. Michael K. Kennedy
Vice President & Director of Regulatory Relations
MOTOROLA, Inc.
1350 I Street, N.W.
Washington, DC 20005

Gail L. Polivy, Esq.
Attorney for GTE Service Corp.
1850 M Street, N.W.
Suite 1200
Washington, DC 20036

Daniel L. Brenner, Esq.
Loretta P. Polk, Esq.
Attorneys for National Cable Television Assoc.
1724 Massachusetts Avenue, N.W.
Washington, DC 20036

Michael R. Gardner, Esq.
Attorney for CellularVision
1150 Connecticut Avenue, N.W.
Suite 710
Washington, DC 20036